Release Note 2.2.5

This release note includes updates to view_hdf since the release of User's Guide Version 2.0.

1.0 Main Menu

(1) "File": The new "File" menu is shown in Fig. 1-1. The new options are:

Fig. 1-1. File Menu

(a) "Open Previous Files": The last five files opened will be remembered. A file can be reopened from the list by selecting this option.

(b) "Export List...": This option has been extended to support the export of a list of subset data with or without fill data. The options are:

(i) "Without Filldata": Export subset data without fill data values The option "Without Reference" does not export data for a record if any item in the list has the fill value. The option "With Reference" does not export data for a record if the reference data value is the fill value.

(ii) "With Filldata": Export subset data including those with fill values.

(c) "Export Tecplot...": This option has been extended in the same manner as the "Export List..." option.

(d) "Create an HDF File": This option writes subset data to a new HDF file. The structure of the new file is the same as the original file's structure. For vdata sets, only one field is written. If the file already exists, that file will be overwritten.

(e) "Add Data to an HDF File": This option allows subset data to be written to an existing HDF file. If the file does not exist, it will be created. If the data set to be written has the same name as a data set already in the file, four options will be given as shown in Fig. 1-2:

(i) Create another data set with same name.
(ii) Append data to the data set.
(iii) Overwrite data in the data set. The existing data set is overwritten. The start record for the overwrite can be specified.
(iv) Cancel adding this data to the HDF file.

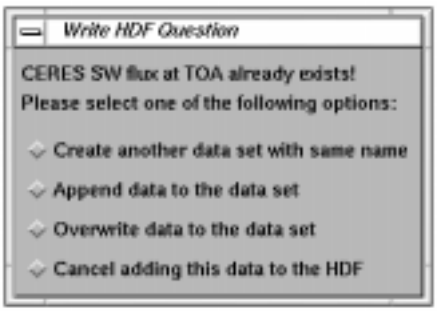

Fig. 1-2. Write HDF Option Menu

(2) "Compute": The new "Compute" menu is shown in Fig. 1-3. The new options include:

(a) "Y1 Raised To The Y2 Power, [Y1 ** Y2]": This option allows calculation of the square root of Y1 when Y2 is set to 0.5, the square of Y1 when Y2 is set to 2, and the inverse of Y1 when Y2 is set to -1. Y2 can be set to any value. If Y2 is not set to an integer number, all negative values of Y1 are set to the fill value and the result is not calculated.

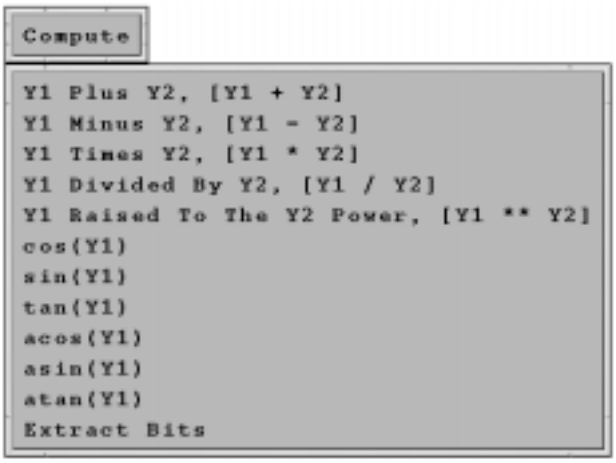

Fig. 1-3. Compute Menu

(b) "cos(Y1)": Compute the cosine of Y1. Set Y2 equal to 0 for Y1 values expressed in units of degrees, and set Y2 equal to 1 for Y1 values expressed in radians by selecting the "Constant" option for Y2 variable. The default for Y2 is 0.

(c) "sin(Y1)": Compute the sine of the Y1 variable. See explanation of Y2 in item 2.b.

(d) "tan(Y1)": Compute the tangent of the Y1 variable. See explanation of Y2 in item 2.b.

(e) "acos(Y1)": Compute the arc cosine of the Y1 variable. The results are in degrees when Y2 is set to 0 and in radians when Y2 is set to 1.

(f) “asin(Y1)”: Compute the arc sine of the Y1 variable. See explanation of Y2 in item 2e.

(g) “atan(Y1)”: Compute the arc tangent of the Y1 variable. See explanation of Y2 in item 2e.

(3) “Style”: Four more options have been added to the list of available symbols. They are “Circle”, “Filled Triangle”, “Filled Square”, and “Filled Circle”.

(4) “Help”: An “About View_HDF...” option has been added. When this option is selected, the pop-up window shown in Fig. 1-4 is displayed. It includes the view_hdf version number, date of last update, and contact information. Click on the “Done” button to close this window.

Fig. 1-4. About view_hdf Window

(5) “Current Filename”: An HDF file can be opened by entering its filename in this field. It accepts only a path name or the “*” wildcard character. A window will pop up for selecting the file if more than one file name is matched.

(6) “INPUT”: A “Display Attributes Only” option has been added to this list. This option displays the attributes of the selected variable without importing that data into the Current Subsets field.

2.0 Select Function Menu

The new "Select Function" menu is shown in Fig. 2-1. The new options are:

(7) "XY Graph": The "Select Variable" option has been added to the X variable list. This option allows the selection of any variable from the Current Subsets list for use as the X variable for the plot.

(8) "Contour Geolocated": This option creates a filled contour plot on a map projection. The data will be converted into a two-dimensional regular grid before a contour is created.

(9) "Export Data Without Filldata": This option exports only those subset data values which are less than the fill value.

(10) "Change Name": This option allows the name of a variable in the Current Subsets list to be changed A window will pop up for entering the new variable name. The "Clear" button clears the name field in the window.

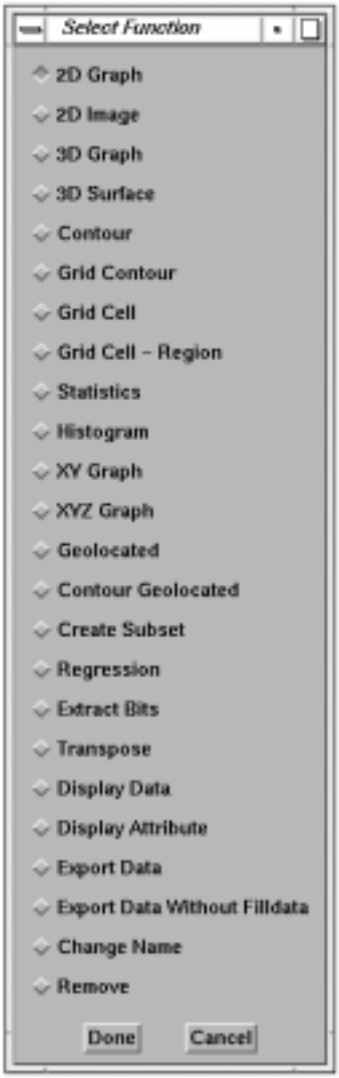

Fig. 2-1. Select Function Menu

3.0 Plot Window Menu

(11) "Axis": The graph will be automatically replotted when the axis ranges are changed.

4.0 Miscellaneous Items

(12) Most of the functions in the C shared library have been rewritten in IDL. However, the C shared library still cannot be eliminated because:

(a) The old version of IDL (before 5.2) does not support the unsigned integer data type.

(b) The IDL vdata functions do not support the string data type.

(c) The IDL vdata functions do not provide access vdata attributes.

(d) Some functions for CERES file support are implemented in C.